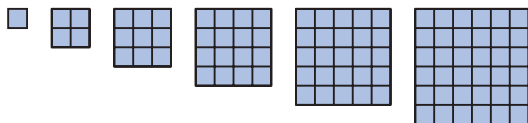


As outcomes, Year 5 pupils should, for example:

Use, read and write, spelling correctly:
square number...
Begin to recognise: 6^2 as *six squared*.

Recognise 1, 4, 9, 16, 25, 36, 49, 64, 81, 100 as square numbers. Relate to drawings of squares.



Respond to questions such as:

- What is 4 squared?
- What is the square of 6?
- What is 8^2 ?
- Which number multiplied by itself gives 36?
- What is the area of a square whose side is 6 cm in length?

Use, read and write, spelling correctly:
factor, divisible by...

Find all the pairs of factors of any number to 100.
For example, the pairs of factors of 36 are:
1 and 36, 2 and 18, 3 and 12, 4 and 9, 6 and 6.

Use factors, when appropriate, for finding products mentally: for example,

$$16 \times 12 = 16 \times 3 \times 2 \times 2 = 48 \times 2 \times 2 = 96 \times 2 = 192$$

As outcomes, Year 6 pupils should, for example:

Use, read and write, spelling correctly:
square number...
Recognise: 6^2 as *six squared*.

Recognise squares up to 12×12 , and calculate the values of larger squares: for example, 15^2 , 21^2 .

Identify two-digit numbers which are the sum of two squares: for example, $34 = 3^2 + 5^2$.

Use a calculator to respond to questions such as:

- Find which number, when multiplied by itself, gives 2809.
- Find two consecutive numbers with a product of 9506.
- The area of a square is 256 cm^2 . What is the length of its side?

Use, read and write, spelling correctly:
factor, divisible by, prime, prime factor... factorise...

Find all the prime factors of any number to 100.
For example, the prime factors of 60 are 2, 2, 3 and 5,
since $60 = 2 \times 30 = 2 \times 2 \times 15 = 2 \times 2 \times 3 \times 5$.

Recognise, for example, that since 60 is a multiple of 12, it is also a multiple of all the factors of 12.

Use factors, when appropriate, for finding products mentally: for example,

$$32 \times 24 = 32 \times 3 \times 8 = 96 \times 8 = 800 - (4 \times 8) = 768$$

Identify numbers with an odd number of factors (squares).

Identify two-digit numbers with only two factors (primes). For example:

- Which of these are prime numbers?
11 21 31 41 51 61

Recognise prime numbers to at least 20.

Use a computer program to identify or define a number chosen by the computer, using knowledge of number properties such as being greater or less than a given number, being odd, even, prime, square, a multiple of..., a factor of...